REMARKS

Claims 1, 6-12, 14, 15, 17, 19 and 20 remain pending in the present application. Claims 1 and 19 have been amended and claim 4 has been cancelled from the present application. The basis for the above amendments may be found throughout the specification, drawings and claims as originally filed. The Examiner is respectfully requested to reconsider and withdraw his rejections in view of the above amendments and remarks as set forth below.

REJECTION UNDER 35 U.S.C. §103

Claims 1, 4, 6-11 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Schmidt (U.S. Pat. No. 5,754,536) in view of Leung (U.S. Pat. No. 6,400,697).

Schmidt is directed generally to a technique for increasing the efficiency of a limited bandwidth system utilizing TDMA/FDMA. Schmidt employs a "reuse unit" which is defines as a carrier frequency and time slot and can be reallocated after each traffic burst. Intercell-interference is minimized by limiting it to a current reuse unit rather than a full talkspurt (e.g., see column 4, lines 36-45).

Schmidt, unlike the present invention, does not teach accessing a communication system parameter "from a group of communications system parameters consisting of antenna pattern parameters, spacecraft/antenna pointing error parameters, and link condition database parameters" as recited in claim 1 of the present invention. Hence, without the benefit of hindsight analysis the limited teaching of "reuse unit" cannot be stretched to teach the present invention's technique of accessing a wide variety of communication parameters that may be used to establish a connection parameter.

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Further, Schmidt's purpose of selecting parameters is to combine them into a "reuse unit" which can be reallocated after a traffic burst and in process confine the possibly damaging inter-cell interference to the current "reuse unit" (e.g., see column 4, lines 36-45 and column 5, lines 52-54). Hence, Schmidt does not teach that the "selected communications parameter" is further used for "determining a connection parameter to minimize intra-system interference." In contrast, Schmidt's teaching is directed to limiting the possibly damaging interference to the confines of the current "reuse unit" rather then performing any further determination based on the "reuse unit." This is clearly illustrated by the following recitation from Schmidt: "Interference is likely only to exist for a single burst using the method and apparatus of the present invention because the next burst will be allocated to a different traffic reuse unit" (see column 13, lines 66 thru column 14, line 2). Therefore, Schmidt does not teach the interference management technique as recited in Applicant's claimed invention.

Leung is generally directed to resource allocation in a broadband wireless communication system. As compared to the present invention, Leung deals with interference in a very different manner as illustrated by the following statement: "... each cell is divided into plurality of labeled sectors. Each label is selected to avoid an unacceptable amount of interference from any other sector ..." (see Abstract). Leung, therefore, uses cell labeling to keep interference within acceptable levels. Leung's use of labeling patterns to reduce interference is illustrated by his disclosure that: "This reuse pattern of three cell types ensures that no two adjacent cells have the same type, or 'labeling pattern,' which reduces the co-channel interference to nominal levels" (see,

column 5, lines 49-51). Hence, Leung teaching of using labeling patterns for cells to minimize co-channel interference is very different from Applicant's claimed invention.

In sum, Schmidt and Leung fail to teach the interference technique as recited in claim 1. Therefore, it is respectfully submitted that claim 1, along with claims depending therefrom, defines patentable subject matter over Schmidt in view of Leung. Applicant also notes that independent claim 19 recites similar subject matter and, thus, should be allowable, along with the claims depending therefrom, for the same reasons as claim 1. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.

Independent claim 11 also stands rejected as being unpatentable over Schmidt in view of Leung. Applicant notes that claim 11 was amended in the previous response. Specifically, claim 11 recites "selecting appropriate frequency channel and time slots for each active user terminal to provide the maximum distances between user terminals operating on the same frequency channel and time slot," in combination with the other elements recited in the claim. The Examiner, while rejecting claim 11 in the present Office action, has not specifically indicated as to where and how references Schmidt and Leung teach the added claim limitation.

Schmidt as noted above attempts to minimize interference by utilizing a "reuse unit" which can be reallocated after a traffic burst and in process confine the possibly damaging inter-cell interference to the current "reuse unit" (column 4, lines 36-45; column 5, lines 52-54). However, Schmidt does not teach that its reuse units are selected "to provide the maximum distances between user terminals operating on the same frequency channel and time slot." Leung also fails to teach the aforementioned

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claim limitation. Therefore, it is respectfully submitted that claim 11, along with claims depending therefrom, defines patentable subject matter over Schmidt in view of Leung. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.
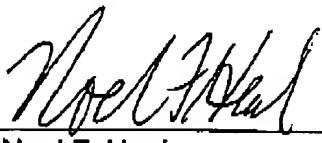
CONCLUSION

All of the stated grounds for rejection have been properly traversed, accommodated, or rendered moot. Applicant, therefore, respectfully requests that the Examiner reconsider all presently outstanding rejections and further requests that they be withdrawn. Accordingly, it is believed that a full and complete response has been made to the outstanding Office action and, as such, the present application is in condition for allowance. If the Examiner believes that personal communication will expedite prosecution of this application, he is invited to telephone the undersigned.

Prompt and favorable consideration of this response is respectfully requested.

Respectfully submitted,

Dated: _____ October 17, 2002 _____   By: _____

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ATTACHMENT FOR CLAIM AMENDMENTS
VERSION WITH MARKINGS TO SHOW CHANGES MADE
U.S. Serial No. 09/187,370; Filed: November 6, 1998

1.   (Twice Amended) A method for interference management of a
processing communications satellite serving multiple user terminals in a satellite based
cellular communications system, said method comprising:

receiving a request for service from a user terminal;

accessing at least one communications system parameter selected from a group
of communications system parameters consisting of [including current active user
terminal parameters,] antenna pattern parameters [including illumination patterns],
spacecraft/antenna pointing error parameters [including antenna offset errors], and link
condition database parameters [including adverse weather condition information];

determining a connection parameter to minimize intra-system interference based
in part upon the selected communications system parameter for the user terminal;

allocating the connection parameter to this user terminal; and

making a communications connection with the processing communication
satellite by the user terminal using the connection parameter.

19.   (Twice Amended) A method for interference management a
communications system servicing multiple user terminals, said method comprising:

receiving a request for service from a user terminal;

accessing at least two [plurality] of known communication system parameters
from a user database, antenna pattern database, spacecraft/antenna pointing error
database and link condition database;

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determining a frequency channel and time slot parameter allocation for the user terminal to minimize intra-system interference based upon said two [the plurality of] communications system parameters;

allocating the frequency channel and time slot parameter to the user terminal;

making a communications connection by the user terminal using the frequency channel and time slot parameter;

periodically redetermining the frequency channel and time slot parameter allocation for the user terminal to continue to minimize intra-system interference; and

updating the databases after the communication connection has ended.

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